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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,798	02/18/2004	Floyd Backes	160-041	1518
34845 7590 07/09/2007 McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			EXAMINER HOLLIDAY, JAIME MICHELE	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/09/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/780,798	<b>Applicant(s)</b> BACKES, FLOYD	
	<b>Examiner</b> Jaime M. Holliday	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In view of the appeal brief filed on February 27, 2007, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

### ***Response to Arguments***

2. Applicant's arguments, see Appeal Brief, filed February 27, 2007, with respect to claim 1 have been fully considered and are persuasive. The U.S.C. 112, first paragraph, rejection of claim 1 has been withdrawn.

Applicant's arguments with respect to the rejection(s) of claim(s) 1 and 2 under U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection

has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakamura et al.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kallio (US 2004/0014422 A1)** in view of **Nakamura et al. (US 6,157,626)**, and in further view of **Feder et al. (US 6,522,881 B1)**.

Consider **claim 1**, Kallio clearly shows and discloses a system for handovers implemented in a Bluetooth environment, which defines a short-range radio network, reading on the claimed "radio control protocol," (paragraphs 4 and 13). Kallio further discloses a system that enables terminal devices to efficiently

transition from a first access point to a second access point based on service discovery information that is transmitted by the second access point. The current access point establishes a link with the terminal device; sends service description data to the terminal device; and authenticates the link with the second access point using a group key based on the service description data, reading on the claimed "radio control protocol for use by devices in a wireless communications environment wherein multiple channels are available for communication," (paragraphs 13 and 15), comprising: a terminal device **402** enters a page scan state, where it awaits one or more paging messages. An access point **406** also enters a paging mode and transmits one or more paging packets. These paging packets each include an identification number based on the address of terminal device. Meanwhile, during this step, the terminal device, which is in page scan mode, responds to the paging packets by transmitting a packet that includes its address, reading on the claimed "transmission of channel claim messages by ones of a plurality of fixed location wireless devices operable to provide network access, exchange, each channel claim message being indicative of an intent to utilize a channel for communications with associated mobile wireless terminal devices at some subsequent point in time, wherein each fixed location device uses the claim messages it sends and receives to select a channel on which to communicate; association auction including transmission of an association bid message from a mobile wireless terminal device to a particular fixed location device, the bid message being a request to communicate in the wireless

communications environment via the particular fixed location device,” (figures 8 and 10, paragraphs 134-135); an access point receives this packet from terminal device. In response, access point transmits a frequency hop synchronization (FHS) packet. The FHS packet is used to pass information that allows terminal device to synchronize with the frequency hopping sequence of access point. Upon receipt of this FHS packet, terminal device transmits a further packet to confirm receipt of the FHS packet. Both terminal device and access point enter into the connection state at this point, reading on the claimed “transmission of an accept message by the particular fixed location device in response to the bid message, the accept message indicating that the particular fixed location device will allow the wireless terminal device which transmitted the bid message to communicate in the wireless communications environment via the particular fixed location device, and wherein the particular fixed location device does not send an accept message to the wireless terminal device which transmitted the bid message if the particular fixed location device determines to not accept the request to associate,” (figures 8 and 10, paragraphs 134-135).

However, Kallio does not specifically disclose an exchange of messages prior to the packets sent during the page scan, which would read on the “announce messages.”

In the same field of endeavor, Nakamura et al. clearly show and disclose a cell selection scheme wherein each base station transmits a perch channel which is spread by using a spread code assigned to each base station, reading on the

claimed "presence announce message," and a mobile station receives more than one perch channel from more than one base station, (abstract). The perch channel transmission attenuation value is calculated for each one of a plurality of received perch channels, (col. 4 lines 63-65). Control unit **35** extracts the perch channel transmission power information contained in the decoded signal, and notifies this received perch channel transmission power information and a perch channel spread code identification number to the transmission attenuation calculation unit **37**. The transmission attenuation calculation unit calculates the perch channel transmission attenuation value according to the measured perch channel receiving level value and the received perch channel transmission power information supplied from the control unit, reading on the claimed "transmission of presence announce messages by the fixed location devices, the announce messages being indicative of presence of the transmitting device, magnitude of intentional transmission power attenuation by transmitting device, and protocol capability of the transmitting device," (col. 5 lines 28-34). After the completion of the perch channel transmission, attenuation calculation for the last perch channel is received from the transmission attenuation calculation unit, the control unit commands the located cell judgement unit **38** to make the located cell Judgement. In response, the located cell Judgement unit makes accesses to the calculation result memory **40**, selects one perch channel transmission attenuation value calculation result which has the smallest value among a plurality of perch channel transmission attenuation value calculation results

stored in the calculation result memory, and reads out the perch channel spread code identification number corresponding to the selected perch channel transmission attenuation value calculation result from the calculation result memory. The located cell Judgement unit then Judges a cell of a base station which transmitted the perch channel corresponding to this read out perch channel spread code identification number as a located cell, and notifies this read out perch channel spread code identification number to the control unit as a judgement result. The control unit then carries out the subsequent control based on the cell judgement result by regarding a cell of a base station which transmitted the perch channel corresponding to the notified perch channel spread code identification number as the located cell, reading on the claimed "wherein a decision to send a bid message is based at least in-part on an indication that the receiving device is capable of providing better service as a function of magnitude of intentional power attenuation by the particular fixed location device," (col. 5 line48- col. 6 line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit perch channels which are used to calculate transmission attenuation as taught by Nakamura et al. in the system of Kallio in order to make handovers more efficient (paragraph 14).

However, Kallio, as modified by Nakamura et al., does not specifically disclose that the paging packets are transmitted, because the terminal device has an indication that the access point is capable of providing better service.



In the same field of endeavor, Feder et al. clearly show and disclose a method and apparatus for use in a wireless communications network that searches for the best serving access point of a base station as a function of communication quality. Each base station **200** includes five access points (AP) that are assigned a different 1MHz channel, reading on the claimed "devices in a wireless communications environment wherein multiple channels are available for communication," (abstract, column 4 lines 6-11). A wireless modem **270** in a fixed wireless network executes an AP search/selection sequence in response to a triggering event, such as when service quality degrades below a threshold level. After detecting beacons and obtaining a communication link quality metric for each neighboring access point, the wireless modem selects the best access point based on the communication link quality metric, reading on the claimed "a decision to send a bid message is based at least in-part on an indication that the receiving device is capable of providing better service," (column 2 lines 59-63, column 3 lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select an access point with the best communication link quality as taught by Feder et al. in the system of Kallio, as modified by Nakamura et al., in order to efficiently complete a transition or handover.

6. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Kallio (US 2004/0014422 A1)** and **Nakamura et al. (US 6,157,626)** in view of **Feder et al. (US 6,522,881 B1)**, and in further view of **Idnani et al. (US 2004/0121765 A1)**.

Consider **claim 2**, and as applied to **claim 1** above, the combination of Kallio and Nakamura et al., as modified by Feder et al., clearly shows and discloses the claimed invention except that a registration request message and its acknowledgement are transmitted.

In the same field of endeavor, Idnani et al. clearly show and disclose a Session Initiation Protocol (SIP) proxy user agent (UA) to serve as a gateway between a SIP core network and a SIP-unaware mobile. A new message is described, a combined registration and event subscription message, which is used by SIP proxy UAs to both register a new contact address for a mobile and to subscribe to the mobile's contact information. When mobile station (MS) **101** begins obtaining service from base station (BS) **111** it sends a registration request message to SIP component **120**. This registration request message **202** is not a SIP message, but rather a registration message in accordance with the wireless protocol utilized by MS. The registration request message is received by SIP proxy UA **123**, via the wireless network interface **121**. Acting as a proxy user agent for the mobile station, SIP proxy UA then sends a combined registration and event subscription message for MS **101** to SIP registrar/presence server **130**. Proxy UAs are responsible for translating the call

control messaging between SIP and the appropriate wireless protocol, reading on the claimed "exchange of registration request messages between devices, wherein a sending device sends a registration request message to a receiving device to indicate that the sending device desires to communicate in the wireless communications environment via the receiving device using the radio control protocol," (figures 1 and 2, paragraphs 8, 14-15);

In response to the message, SIP registrar sends SIP OK message to SIP proxy UA, reading on the claimed "exchange of registration acknowledge messages between wireless devices, wherein a sending device sends a registration acknowledge message to a receiving device in response to a registration request message, to indicate that the sending device understands that the receiving device will communicate in the wireless communications environment using the radio control protocol," (figures 1 and 2, paragraph 30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to register, via a proxy, to a server as taught by Idnani et al. in the system of Kallio and Nakamura et al., as modified by Feder et al., in order to efficiently complete a transition or handover.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571)

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272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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